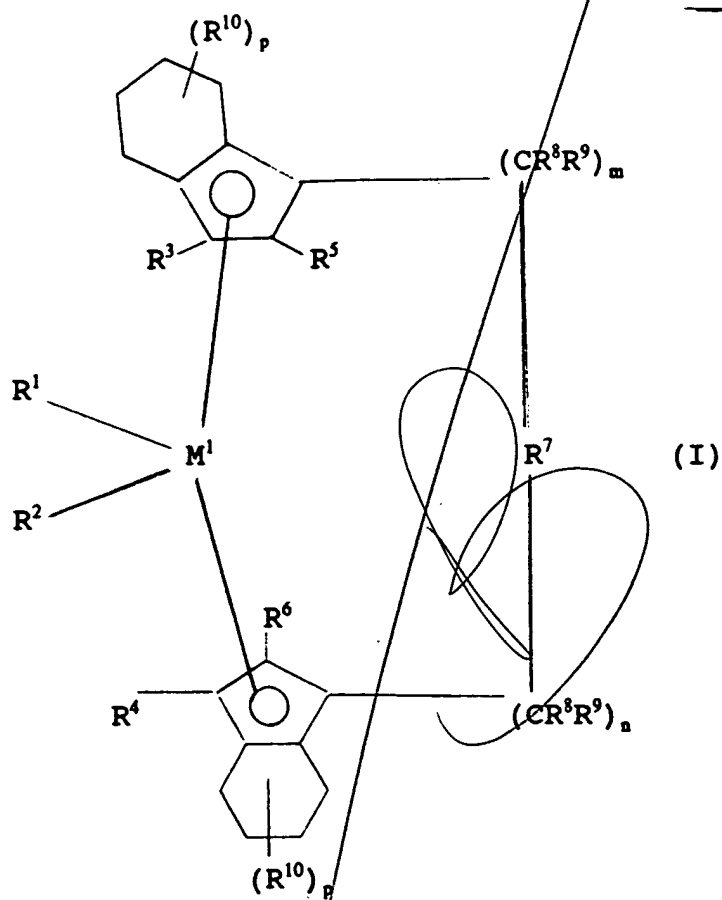
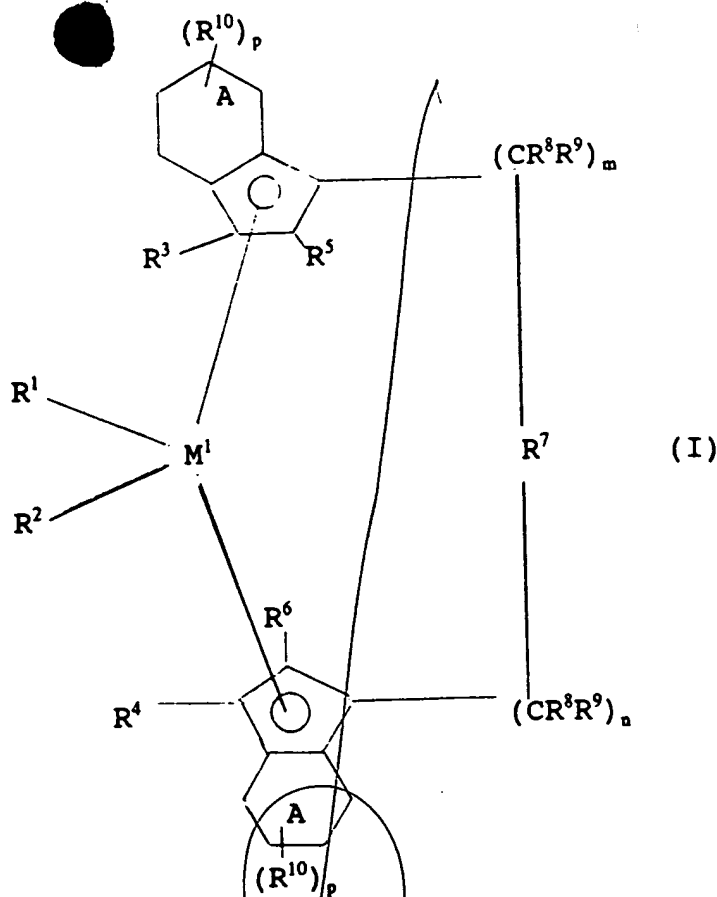


We claim:

1. A compound of the formula I [for preparing essentially isotactic olefin polymers]



464749-0565880
B1



in which

M^1 is a metal from group IVb, Vb or VIb of the Periodic Table

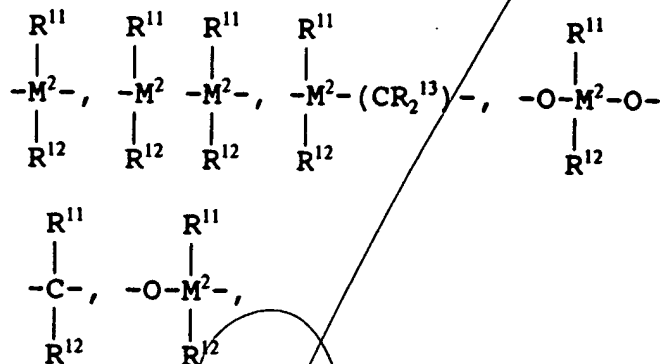
R^1 and R^2 are identical or different and are a hydrogen atom, a C_1 - C_{10} -alkyl group, a C_1 - C_{10} -alkoxy group, a C_6 - C_{10} -aryl group, a C_6 - C_{10} -aryloxy group, a C_2 - C_{10} -alkenyl group, a C_7 - C_{40} -arylalkyl group, a C_7 - C_{40} -alkylaryl group, a C_8 - C_{40} -arylalkenyl group or a halogen atom,

R^3 and R^4 are identical or different and are a hydrogen atom, a halogen atom, a halogen atom, a C_1 - C_{10} -alkyl group, which is optionally halogenated, a C_6 - C_{10} -aryl group, an $-NR_2^{15}$, $-SR^{15}$, $-OSiR_3^{15}$, $-SiR_3^{15}$ or $-PR_2^{15}$

cal in which R^{15} is a halogen atom, a C_1 - C_{10} -alkyl group or a C_6 - C_{10} -aryl group,

R^5 and R^6 are identical or different and are as defined for R^3 and R^4 , with the proviso that R^5 and R^6 are not hydrogen,

R^7 is



$=BR^{11}$, $=AlR^{11}$, $-Ge-$, $-Sn-$, $-O-$, $-S-$, $=SO$, $=SO_2$, $=NR^{11}$, $=CO$,
 $=PR^{11}$ or $=P(O)R^{11}$,

where

R^{11} , R^{12} and R^{13} are identical or different and are a hydrogen atom, a halogen atom, a C_1 - C_{10} -alkyl group, a C_1 - C_{10} -fluoroalkyl group, a C_6 - C_{10} -aryl group, a C_6 - C_{10} -fluoroaryl group, a C_1 - C_{10} -alkoxy group, a C_2 - C_{10} -alkenyl group, a C_7 - C_{40} -arylalkyl group, a C_8 - C_{40} -arylalkenyl group or a C_7 - C_{40} -alkylaryl group, or a pair of substituents R^{11} and R^{12} or R^{11} and R^{13} in each case with the atoms connecting them, form a ring,

M^2 is silicon, germanium or tin,

R^8 and R^9 are identical or different and are as defined for R^{11}

m and n are identical or different are zero, 1 or 2, m
plus n being zero, 1 or 2, [and]

the radicals R^{10} are identical or different and are as defined

for R^{11} , R^{12} and R^{13} .

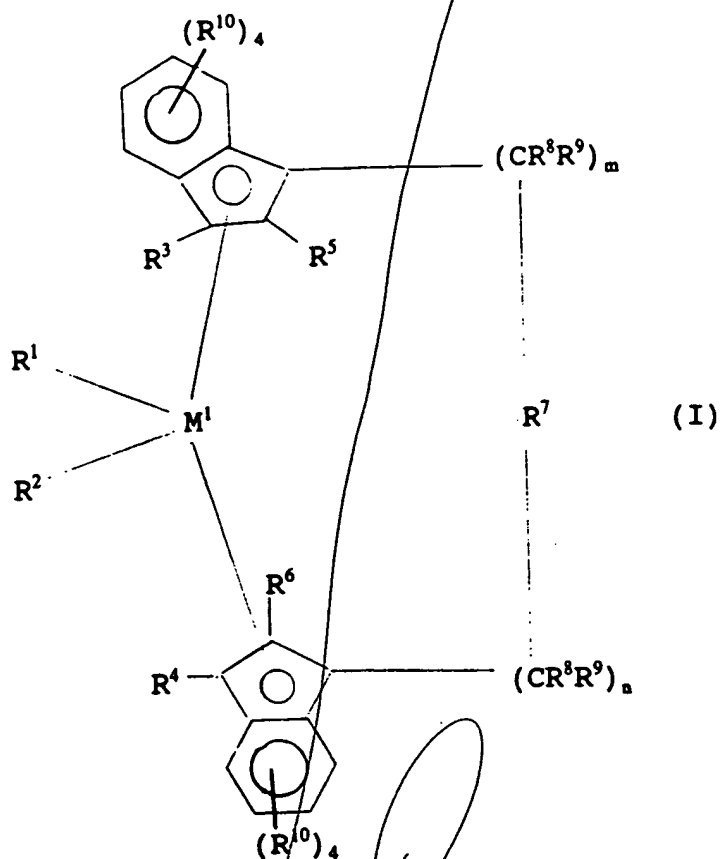
rings A are saturated or aromatic.

p is 8, when rings A are saturated, and

p is 4, when rings A are aromatic.

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16. A compound of the formula I



in which

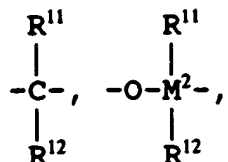
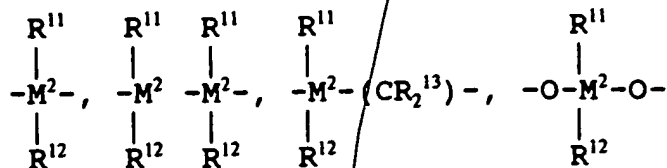
M^1 is a metal from group IVb, Vb or VIb of the Periodic Table,

R^1 and R^2 are identical or different and are a hydrogen atom, a C_1 - C_{10} -alkyl group, a C_1 - C_{10} -alkoxy group, a C_6 - C_{10} -aryl group, a C_6 - C_{10} -aryloxy group, a C_2 - C_{10} -alkenyl group, a C_7 - C_{40} -arylalkyl group, a C_7 - C_{40} -alkylaryl group, a C_3 - C_{40} -arylalkenyl group or a halogen atom,

R^3 and R^4 are identical or different and are a hydrogen atom, a halogen atom, a C_1 - C_{10} -alkyl group, which is optionally halogenated, a C_6 - C_{10} -aryl group, an $-NR^{15}$, $-SR^{15}$, $-OSiR_3^{15}$, $-SiR_3^{15}$ or PR_2^{15} radical in which R^{15} is a halogen atom, a C_1 - C_{10} -alkyl group or a C_6 - C_{10} -aryl group,

R^5 and R^6 are identical or different and are as defined for R^3

and R⁴, with the proviso that R⁵ and R⁶ are not both hydrogen, R⁷ is



=BR¹¹, =AlR¹¹, -Ge-, -Sn-, -O-, -S-, =SO, =SO₂, =NR¹¹, =CO, =PR¹¹
or =P(O)R¹¹,

where

R¹¹, R¹² and R¹³ are identical or different and are a hydrogen atom, a halogen atom, a C₁-C₁₀-alkyl group, a C₁-C₁₀-fluoroalkyl group, a C₆-C₁₀-aryl group, a C₂-C₁₀-alkenyl group, a C₇-C₄₀-arylalkyl group, a C₈-C₄₀-arylalkenyl group or a C₇-C₄₀-alkylaryl group, or a pair of substituents R¹¹ and R¹² or R¹¹ and R¹³, in each case with the atoms connecting them, form a ring,

M² is silicon, germanium or tin,

R⁸ and R⁹ are identical or different and are as defined for R¹¹,

m and n are identical or different and are zero, 1 or 2, m plus n being zero, 1 or 2,

the radicals R¹⁰ are the same or different and are as defined for R¹¹, R¹² and R¹³.

17. A compound claimed in claim 16, where n: C

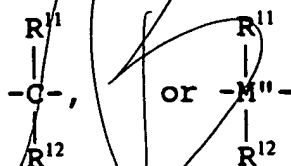
M¹ is titanium, zirconium, hafnium, vanadium, niobium, or tantalum,

R¹ and R² are identical or different and are methyl or halogen,

R³ and R⁴ are hydrogen,

R⁵ and R⁶ are identical or different and are methyl, ethyl, or trifluoromethyl,

R⁷ is a radical of the formula



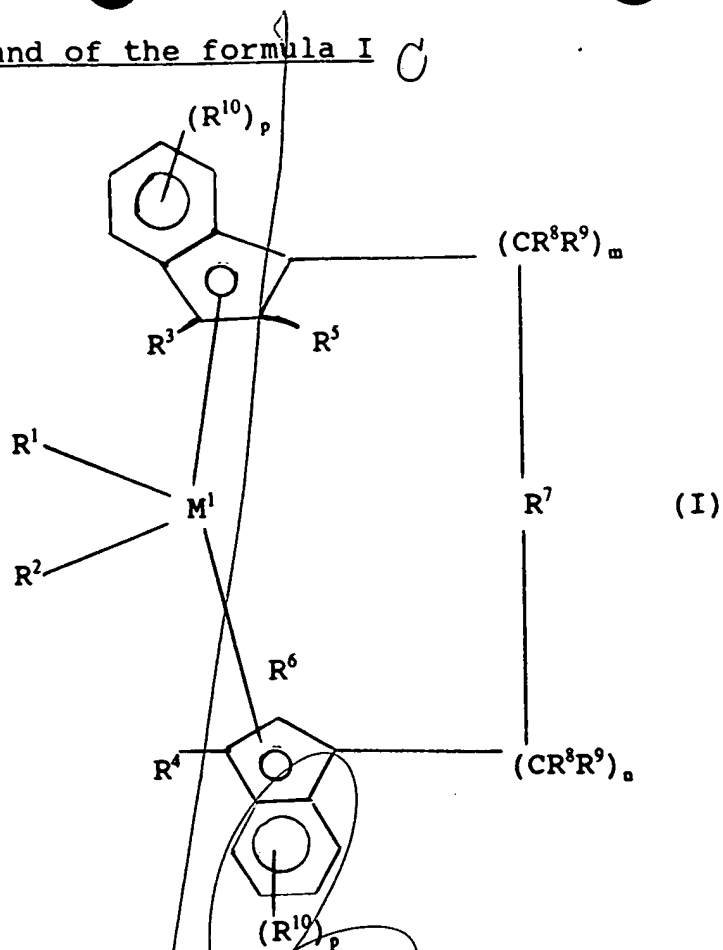
where M'' is silicon or germanium, and

R⁸ and R⁹ are identical or different and are hydrogen or C₁-C₁₀-alkyl.

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18. A compound of the formula I

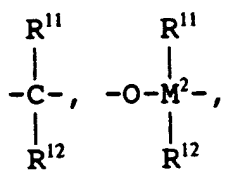
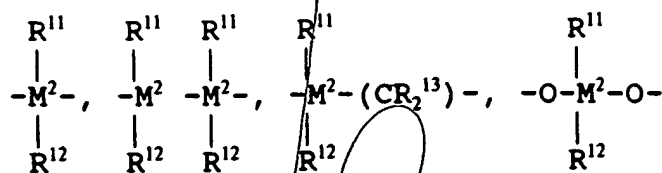


in which

M^1 is a metal from group IVb, Vb or VIb of the Periodic Table, R^1 and R^2 are identical or different and are a hydrogen atom, a C_1 - C_{10} -alkyl group, a C_1 - C_{10} -alkoxy group, a C_6 - C_{10} -aryl group, a C_6 - C_{10} -aryloxy group, a C_2 - C_{10} -alkenyl group, a C_7 - C_{40} -arylalkyl group, a C_7 - C_{40} -alkylaryl group, a C_3 - C_{40} -arylalkenyl group or a halogen atom,

R^3 and R^4 are identical or different and are a hydrogen atom, a halogen atom, a C_1 - C_{10} -alkyl group, which is optionally halogenated, a C_6 - C_{10} -aryl group, an $-NR_2^{15}$, $-SR^{15}$, $-OSiR_3^{15}$, $-SiR_3^{15}$ or PR_2^{15} radical in which R^{15} is a halogen atom, a C_1 - C_{10} -alkyl group or a C_6 - C_{10} -aryl group,

R⁵ and R⁶ are identical or different as defined for R³
and R⁴, with the proviso that R⁵ and R⁶ are not both hydrogen,
R⁷ is



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=BR¹¹, =AlR¹¹, -e-, -Sn-, -O-, -S-, =SO, O₂, =NR¹¹, =CO, =PR¹¹

or =P(O)R¹¹,

where

R¹¹, R¹² and R¹³ are identical or different and are a hydrogen atom, a halogen atom, a C₁-C₁₀-alkyl group, a C₁-C₁₀-fluoroalkyl group, a C₆-C₁₀-aryl group, a C₂-C₁₀-alkenyl group, a C₇-C₄₀-arylalkyl group, a C₈-C₄₀-arylalkenyl group or a C₇-C₄₀-alkylaryl group, or a pair of substituents R¹¹ and R¹² or R¹¹ and R¹³, in each case with the atoms connecting them, form a ring.

M² is silicon, germanium or tin,

R⁸ and R⁹ are identical or different and are as defined for R¹¹,

m and n are identical or different and are zero, 1 or 2, m plus n being zero, 1 or 2,

p is a number from 1 to 4, and

the radicals R¹⁰ are the same or different and are a halogen atom, a C₁-C₁₀-alkyl group, a C₁-C₁₀-fluoroalkyl group, a C₆-C₁₀-aryl group, a C₂-C₁₀-alkenyl group, a C₇-C₄₀-arylalkyl group, a C₈-C₄₀-arylalkenyl group or a C₇-C₄₀-alkylaryl group, or a pair of substituents R¹⁰, with the atoms connecting them, form a ring.

Ad
C4